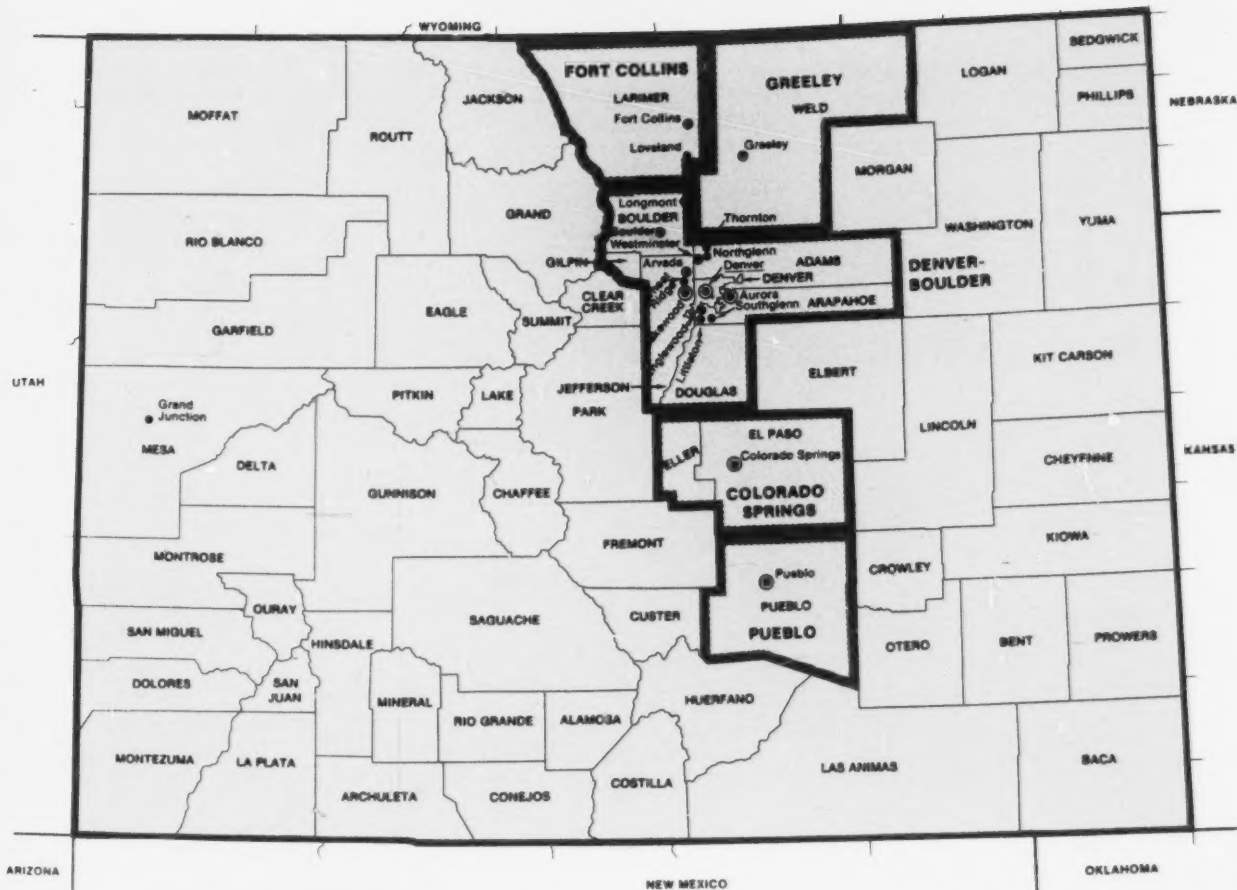


COLORADO:



THE STATE AND ITS EDUCATIONAL SYSTEM

BY HAROLD L.
HODGKINSON

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Over the years, the author has learned much about Colorado from Cal Frazier, former Superintendent of Public Instruction, Dick Jonson, new President of the Western Interstate Commission for Higher Education, Frank Newman and Aimes McGuinness of the Education Commission of the States. Susan Zimmerman's coalition-building efforts in Denver were very helpful, and Martha Romero, currently on the Commissioner's staff but soon to move to Pike's Peak Community College, has provided many insights about Colorado Hispanic populations and the state in general.

However, errors of fact or interpretation remain the responsibility of the author.

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Cover Note:

The cover map makes clear the population distribution within the "wedge" which is the Front Range, giving Colorado areas of very high and very low population density. Very few major markets lie within 200 miles of the wedge, making it hard for Denver to become a major distribution center. It also indicates the difficulty of providing water and energy resources to so many people in such a small area, which also explains the potential for pollution of many kinds—it's hard to "flush anything away" in Colorado! Population "maps" can be very useful for people who are looking for the human equivalents to rivers and mountains, including planners, marketers and even educators.

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**COLORADO:
THE STATE AND
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COLORADO—THE STATE AND ITS EDUCATIONAL SYSTEM

The images of Colorado that float into people's heads are probably very similar—mountains, skiing, Denver and the "Front Range." Coors, energy extraction, Stapleton Airport and the Air Force Academy. This all comes from the major expansion of the Colorado economy during the seventies. Probably no state has benefitted as much from its scenery, in that some of the best educated people in America found Colorado to be a most appealing place to live. (By 1980, Colorado had the highest percentage of people with a college degree of any state, but HALF of them earned their degree in another state, meaning that the good taxpayers of Michigan, Massachusetts, Indiana and Ohio paid for that education, after which the recipient took it to Colorado.)

Today, although the scenery is still gorgeous and the ski runs are packed, there is a sense in which the bloom is off the rose. The 1982 recession skidded the Colorado economy down as fast as a ski run at Vail, even though the effects were not clear until 1984. Although oil prices probably led the way, the speculative and overbuilt real estate markets were right behind, especially in the Denver metropolitan area where vacancy rates reached almost 40 percent. Although Denver is touted as the high tech center of the Rockies along with financial and business services, the primary markets are very heavily agriculture, energy and mineral production. These three seem to continue to be the most volatile sectors of the nation's economy, making Denver, as well as the rest of the state, very vulnerable to economic cycles. Even Colorado's profitable manufacturing sector is linked to energy and minerals.

In fact, the Rocky Mountain states have done so badly compared to the rest of the nation that, for the first time, they now rank below the southeast in terms of 1988 per capita income. In addition, the gap between the top and bottom region is wider than at any time since 1969 (see Table 1).

Table 1
Regions Ranked by
Per Capita Income, 1988

<i>Region</i>	<i>Rank</i>
New England	1
Mid-Atlantic	2
Plains	3
Southwest	4
Southeast	5
Rockies	6

Source: U.S. Department of Commerce, April 1989.

If there is a moral to this story, it is that in the 1990s, regions, states and individual families will be increasingly richer or poorer, with fewer in the middle income range. For families, the income data look like that shown in Figure 1 (Page 2).

If one questions how the Rocky Mountain states arrived at the bottom on per capita income, several answers would include business failures per million population as well as housing foreclosures (see Figures 2 and 3).

A final indicator of trouble in the mountains is to look at the U.S. cities with the worst air pollution, according to the 1988 Environmental Protection Agency's (EPA) report on carbon monoxide violation days (see Table 2). The cities with the BEST air quality in the EPA report are shown in Table 3.

While the EPA appears to be measuring air pollution levels, they are also measuring industrial conversion levels as well. It is clear that most of the "Rust Bowl" states, written off by many futurists as over the hill, have turned their economies around, and are building diversified eco-

Figure 1

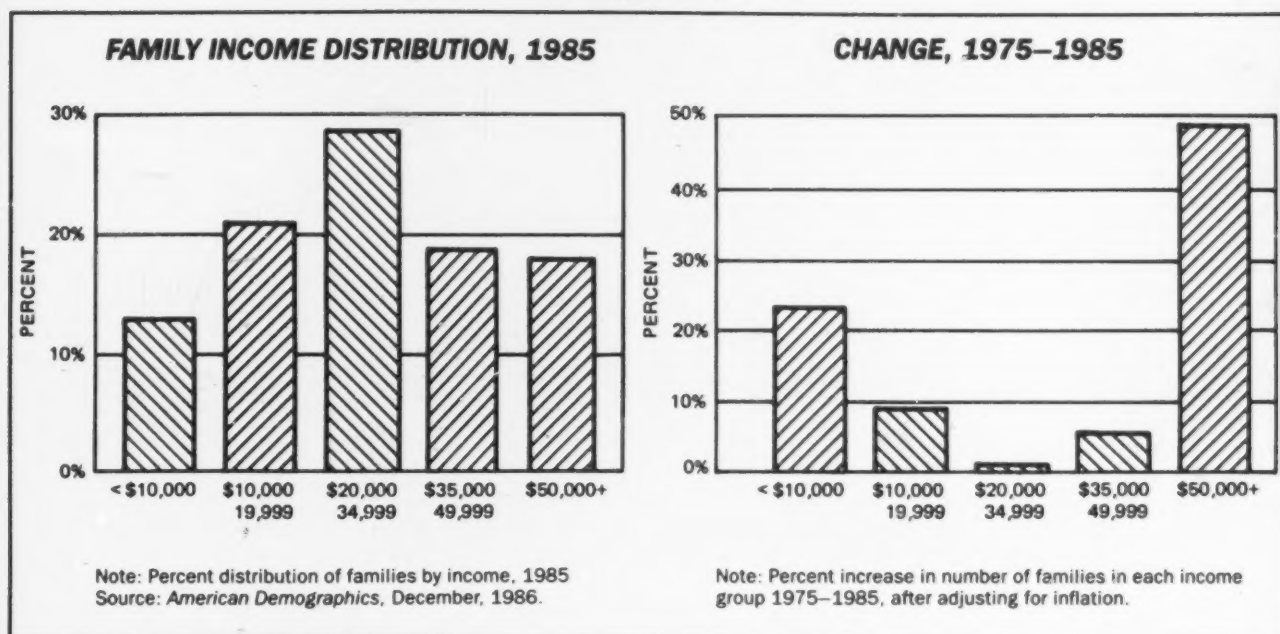
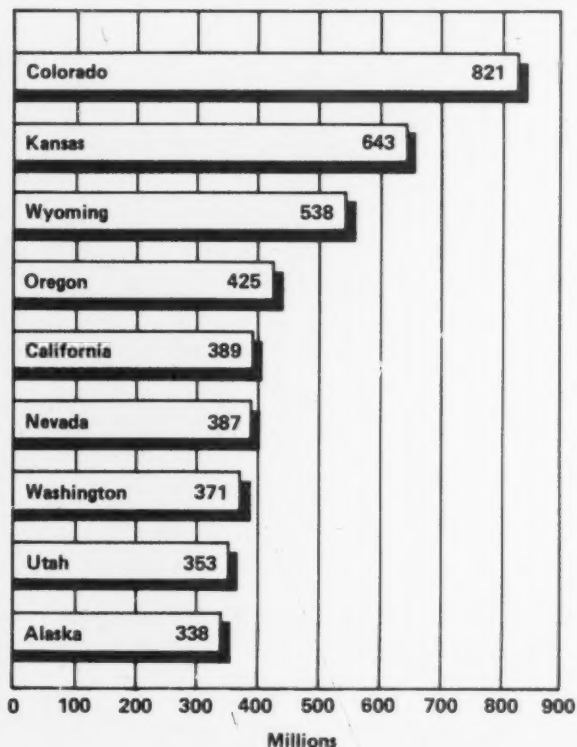


Figure 2
Business Failures for Selected States 1988



(Business failures per million residents.)
Source: *The Chronicle*, using data from Dun & Bradstreet, 1988.

Table 2
Cities With Worst Air Pollution, 1988

	Number of Violation Days
1. New York	86
2. Spokane, Washington	66
3. Los Angeles	40
4. Steubenville, Ohio	24
5. Denver	24
6. Las Vegas	20
7. Provo, Utah	20
8. Fairbanks, Alaska	15
9. Albuquerque	14

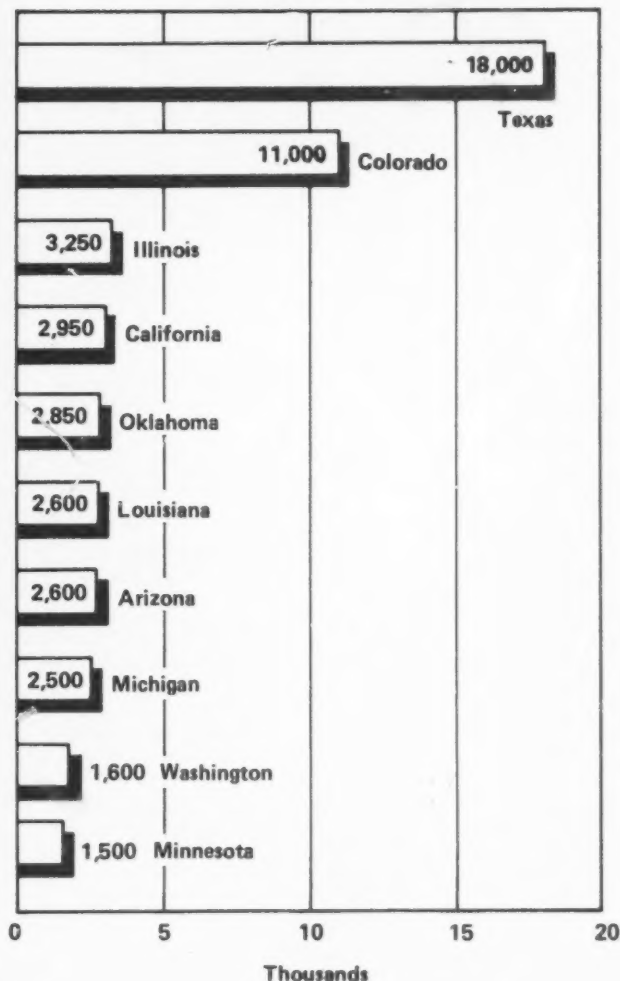
Source: Environmental Protection Agency, 1988.

Table 3
Cities With Best Air Quality, 1988

	Number of Violation Days
1. Cleveland	0
2. Boston	0
3. San Jose	0
4. Detroit	1
5. Pittsburgh	3

Source: Environmental Protection Agency, 1988.

Figure 3
Housing Foreclosures* In Troubled States,
As of August 31, 1988



*Numbers are estimates.

Source: *The Washington Post*, using data from the Farmers Home Administration, HUD and the Veterans Administration.

conomic resources that are recession resistant, while the "Sun Belt," extolled by every futurist from John Naisbett to Marvin Cetron as the place to seek fame and fortune, is now in deep ecological and economic trouble. The Rocky Mountain states are pushing hard for "high tech" as a major source of stability for their economies, and it may be that there will not be enough high tech to go around. Certainly tourism, mineral extraction and energy are unlikely to settle down. In addition, the major jobs in tourism—maids, waiters and waitresses, janitors, night watchmen, clerks and cashiers—do not pay very well at all.

Yet, Colorado's past has been largely boom and bust, and the U.S. Census Bureau projects that Colorado's

population will continue to grow, from 3.4 million in 1990 to 3.8 million in 2000 and to 4 million by 2010, a growth rate (11 percent for the 1990-2000 period and 7.5 percent for 2000-2010) a little above the national average. This growth rate hides the fact that 13,000 people leave each year. In many western states, when times get bad, people "hunker down" rather than leaving for a place where things look better. It may be the only way to survive a boom and bust economy if you like the scenery.

On the other hand, it may not be possible to SEE the scenery in 2010 in parts of Colorado. It seems hard for Colorado to mount a serious attack on very pressing problems—the Front Range continues to sprawl out across a huge megalopolis (see the cover of this publication) in a very uncoordinated fashion, the altitude makes cars run in a very inefficient and highly polluting way which, in addition to the "bowl" of air inversion which makes the threat of future pollution even more vital, the fragility of the water delivery system in Colorado is more obvious every day, the severance tax issues grow more complex, yet Colorado has little ability to develop a PLAN for attacking these problems. Even the election of Governor Lamm (and his re-election) did not result in the legislature's passage of legislation which could protect the state from its own development, even in a western, "everyman for himself" state. Future growth is usually seen as part of the solution rather than as part of the problem. Continued growth will require even more water, and some of the proposals for expanding the water supply, based on water located 600-1,000 miles away, make Rube Goldberg look like a careful planner. And that's water for new homes, agricultural irrigation and energy development. Even though the scenery is still beautiful, there are times for action. As *The National Journal* author, Neal Peirce puts it:

A once-in-a-generation opportunity to build a resilient, conserving society in one of the most exquisite places on earth will have been forsaken.

Let's now have a look at how this very special state looks in comparison with the rest. (See Colorado Profile next page.)

Weaving a pattern from these numbers, Colorado emerges as an exceptionally beautiful yet vulnerable state, both ecologically and economically. The environmental vulnerability comes from the highly compressed, dense human population of the Front Range and the sparse natural resources per acre, including water and air (very low density at altitude) plus the famous "bowl effect" that holds pollutants over Denver. There are no buffers between contamination and the environment, and it is very hard to throw or flush ANYTHING "away." The economic vulnerability comes from a non-diverse economy built on agriculture, minerals and energy extraction, all three are bound to go up and down very often and with wide swings.

The state's population is about average in size, but it is very concentrated and not distributed evenly. Although

COLORADO PROFILE AND STATE RANK

	Colorado	Rank	United States
Population, 1988	3,290,000	26th	245,807,000
Population Change, 1980-88	+ 13.8%	11th	+ 8.5%
Population Projection, 2000	3,813,000	25th	267,747,000
Percent of Population:			
Over Age 65	9.2%	47th	12.3%
Living in Metro Areas	81.7%	12th	76.9%
Black Adult Population, 1988	90,000	28th	20,441,000
Hispanic Adult Population, 1988	264,000	9th	18,000,000
Births (per 1,000 population), 1986	16.9	10th	15.6
Percent to Teenage Mothers	10.2%	34th	12.6%
Percent to Unmarried Women	18.0%	36th	23.4%
Infant Deaths (per 1,000 live births)	8.6	46th	10.4
Doctors (per 100,000 population), 1986	199	15th	205
Hospital Beds (per 100,000 population), 1986	441	41st	532
Average Hospital Daily Room Charges, 1988	\$260	15th	\$253
Murders (per 100,000 population), 1987	7.3	23rd	9.0
Crimes (per 100,000 population), 1987	7,032	5th	5,480
Crime Rate Change, 1985-87	-6.8%	49th	+ 6.5%
Violent Crimes (per 100,000 population), 1987	468	21st	609
Prisoners (per 100,000 population), 1986	112.4		
Percent of Population Who Voted in 1988	55.1%	16th	50.2%
Presidential Election			
State/Local Government General Expenditures (per capita), 1986	\$2,568	21st	\$2,504
Income Tax as Percent of State Revenue	40.4%	9th	30.8%
Federal Grants to State and Local Governments (per capita), 1987	\$349	45th	\$427
Federal Defense Funds, 1987	\$ 4.4 Billion	16th	\$215 Billion
Social Security Recipients, 1987	11.7%	47th	15.3%
Food Stamp Recipients, 1987	5.8%	32nd	7.5%
Average Annual Pay, 1987	\$20,736	11th	\$21,855
Bank Deposits (per capita), 1987	\$ 6,137	40th	8,134
Employment Population Ratio	69.2%	2nd	61.5%
Female Labor Force Participation Rate, 1988	61.6%	10th	56.6%
Gross State Product, 1986	\$59.2 Billion	23rd	\$4,191 Billion
Manufacturing (as a Percent of Gross State Product), 1986	12.9%	40th	19.7%
Change in Housing Starts, 1985-87	-38.7%	48th	-10.2%
Retail Sales Per Capita, 1987	\$6,681	18th	\$6,348

Source: U.S. Bureau of the Census, *Statistical Abstract of the United States, 1989*.

the growth rate has been greater than the nation, it is not as great as Florida, Texas, etc. By the year 2000 Colorado will have 3.8 million people and will move from a rank of 26th to 25th. The elderly population is a small fraction of the state total, although it will increase in the decade to come. The Hispanic population is much larger than the black population, and has been in Colorado for a long time indeed. (Hispanics got in on the ground floor in terms of mining and farming, and generally do better than Hispanics in most other states in terms of income.)

Fertility rates are high, given the large number of young adults in the population. In addition, "at risk" babies born to teenage or unmarried mothers are a surprisingly small percentage of total births in the state, and Colorado has a very low level of infant deaths in the first year of life. There are fewer doctors and hospital beds per 100,000 people in Colorado than the nation as a whole, and the cost of a hospital room is greater than average. In addition, health care outside the Front Range may be very difficult to find.

The state's violent crime rate is about at the national average, but nonviolent crime is very high (personal, household or car theft, burglary, drug usage). Thus the criminals that get the longest jail sentences are comparatively rare in Colorado, meaning a rather small number of prisoners per 100,000 citizens. Again, a highly educated population will tend to have a lower number of prisoners, because education leads to economic self-sufficiency while over 80 percent of the prisoners in our jails are high school dropouts, and each one costs the taxpayer around \$20,000 a year just for maintenance. A high school dropout will get, at best, a minimum wage job with not enough pay to allow for the basics of owning or renting a home, getting married, starting a family or even owning a car.

Given the very high educational level among the adults of Colorado, the percentage of people who voted in the 1988 Presidential election is somewhat lower than expectations. State and local government funding is about at the national level per person, although income taxes are a very high percentage of the total, and severance taxes are very high in most energy extraction businesses. In typically western fashion, reliance on federal formula grants is very low, even though the federal government is welcomed in terms of defense dollars coming to Colorado (some \$4.4 billion).

A young population has a low level of social security recipients, and the low level of food stamps may or may not show a low level of poverty—it may be that the state doesn't like food stamp programs as sapping independence, energy, etc. It is clear that Coloradans earn a lot of pay, and that they save a very small fraction of it. (The "now ethic" seems alive and well in the state.) Most people who are capable of working are in the work force, especially women. But most people who are capable of saving are not in the "savings force," perhaps because younger citizens don't have the desire to save, that happens usually in the middle years.

While the Gross State Product was reasonable in 1986, the precipitous drop in housing starts from 1985-87, plus the mortgage foreclosure and business failure data men-

tioned earlier show that as of 1989, Colorado had not yet climbed out of the economic hole it was in previously. But Coloradans seem a lot like Texans in this respect—when times are bad, most do not move away, they "hunker down." Because the major problems in the Colorado economy do not seem to be overly concerned with the production of jobs but rather with the economic "pipeline" that is necessary for jobs to function, it may be that the state can rebound quite quickly when the economic pipeline that fuels jobs gets unclogged. The limited amount of outmigration from the Denver area was scheduled to end by the end of 1989 as employment levels began to rebound. But because of the overbuilding in the eighties (both office and residential) it seems unlikely that Denver will lead Colorado to good times. Granted, business services are up, and the activity surrounding the new airport and the Denver convention center will pump new dollars into the Denver economy, but they represent cost centers as well as profit centers. Although the Denver metropolitan area is about half of the state's population, it is likely that the entire Front Range will have to show economic growth, and not just Denver. Certainly the decline in construction and related fields should bottom out during 1990, and Denver business services should show some modest gains.

However, the long-term problem for Colorado comes from the lack of diversity in the economy, and the dependency, even now, on highly fluctuational areas. There is an increase in business services, software, etc., but if one looks for the major markets within 200 miles of Denver, they are very hard to find. In addition, the state has shown a prolonged unwillingness to deal with the truly urgent problems of the rapid decline in one of the most beautiful and vulnerable environments to be found, even on social issues. Because poverty is not highly visible in Colorado, it is easy to ignore.

Before proceeding to the discussion of educational issues, it is worth a moment to consider the very special Hispanic population of Colorado. Although over 60 percent of Colorado Hispanics are of Mexican ancestry, they have been in Colorado for a long time, and have been involved in mining and timber from the beginning. As a result, they are comparatively well-organized politically, with strong organizations in the areas of business, church and political action. Over half of the state's Hispanics live in the Denver metro area, mostly in Adams and Denver counties, not in Arapahoe, Boulder, Gilpin, Jefferson and Douglas. The original Denver barrio area was north of today's "downtown," which has, via roads and business expansion, split the original Hispanic community into several fragments.

Whites, blacks and Hispanics in the Denver metro area all earn more than their counterparts in other places, but white household income is still far higher than that for blacks or Hispanics. But the potential for advancement makes Colorado an attractive place for Hispanics in California, the Midwest and Southwest. Because of the length of time in the area, a small percent of Hispanics speak Spanish at home. The *Hispanic Almanac* suggests that 90 percent of Hispanics speak only English at home. (The

COLORADO'S EDUCATIONAL SYSTEM

	1983-84	1988-89
School Enrollment:		
Elementary	319,064	319,216
Secondary	223,111	240,865
Total	542,175	560,081
Per Pupil Expenditure (CO)	\$3,261	\$4,633 Rank-18th
Per Pupil Expenditure (U.S.)	\$3,173	\$4,509
Average Teacher Salary (CO)	\$22,895	\$29,558
Average Teacher Salary (U.S.)	\$22,019	\$29,567
	Colorado	U.S. 1988-89
Funding Sources:		
Federal	4.7%	4.8%
State	42.0%	38.5%
Local	53.3%	56.7%
Graduation Rate	70.9%	73.7%
Pupil/Teacher Ratio	18.7 to 1	18.0 to 1
Per Capita Income, 1987	\$15,584	Rank 15th
Adults with College Degree, 1988	23%	1st
1988 ACT Scores	19.7	7th (of 28 states using ACT)
Percent of ACT Scores over 26	17.1%	4th (of 28 states using ACT)
Percent of Population Age 5-17 Years in Poverty	10.8%	39th
Handicapped Students (as a percent of student enrollment)	9.3%	44th
Minority Students as a Percent of School Enrollment, (1987):		
Hispanic	14%	
Black	5%	
Asian	2%	
American Indian	1%	
Total Minority	22% (U.S. 30%)	
	1990	2000
Total Population, 0-18 Years	886,000	924,000
Percent minority	25.3%	33.1% (U.S. 38.2%)

Source: U.S. Bureau of the Census, *Statistical Abstract of the U.S.*; 1989, Institute for Educational Leadership, Center for Demographic Policy, *State of the States, 1989*; *American Demographics*, May 1989; and U.S. Department of Education, Secretary's Office, *State Educational Performance Chart, 1989*.

language shift literature supports the idea that bilingual problems disappear with time). In addition, Hispanic educational levels are quite high in Colorado—about one in four has had some college, which is higher than other states and metro areas like Chicago, New York and Los Angeles.

The frustration is that while Hispanics do well in Colorado, so do whites, leaving the margin between them very high. In addition, in times of economic downturn, the better educated white population is much less vulnerable than the Hispanic population. In this environment, tensions and conflicts can be very difficult for Hispanic children, particularly in school settings: *You are supposed to do better than your parents, you are supposed to compete with your fellow students for grades but cooperate with them in other ways, you are supposed to look teachers straight in the eye and speak immediately when asked, even though many Hispanics consider downcast eyes and silence to be a mark of respect, etc.* Increasing numbers of Asian children in Colorado wrestle with the same cultural conflicts.

Now we can take a look at the numbers for the Colorado educational system, having established something of the context in which the educational system must operate.

We have now learned one of the reasons Colorado bounces back from serious recessions—the remarkably well-educated young work force. However, even though Colorado leads the nation in the percentage of adults with a college degree, it is clear that a large fraction of these college degree holders earned their degree in another state, whose taxpayers funded the degrees that then moved to Colorado.

Even during the economic downturn, per capita income stayed high, and in terms of level of effort, Colorado seems to be about average in support of education. (However, that support is heavily from local tax revenues, at a time when most states are moving toward greater responsibility for education. In terms of state level commitments to public schools, Colorado is far behind.) The enrollment data suggests a major problem—a decade of enrollment growth in the 1990s followed by a decade of decline to open the next Century. The decline will be heavily Anglo youth, while the percentage of minority school enrollments continues to expand after the year 2000.

Looking at “quality” measures, the state has an extraordinarily low level of high school graduation, considering that the adult population is number one in college degree holders. (People who have benefitted from high educational levels are usually supportive of education, at least for their own children.) By contrast, Minnesota has a 90 percent high school graduation rate with a smaller percent of adult college degree holders than Colorado. On the other hand, Colorado ACT scores are high, and the percentage of students scoring at the top of the test is 4th (of the 28 states using the ACT test). The state is also 9th in the nation in the percentage of students who have taken Advanced Placement courses. One way to read these data is to assume that the very well-educated take care of their

own, but that in the “every man for himself” state there is less concern for the education of other people’s children.

This theory is supported by the fact that poverty, while below the national average for young people, is not unknown in Colorado, but because most people are doing all right it is relatively easy to overlook the poor. The same notion would apply to the handicapped, in that only six states have a smaller percentage of special classes for such children. Even though minority populations do reasonably well in Colorado, the gap between their income and that of Anglos is no narrower than in the nation. A clear equity agenda seems to elude Colorado, just as is the case for the urgent steps needed to maintain the environment. It is hard for Colorado to “get its act together,” either for the environment or for kids. But if the environment deteriorates further, why will the PhD’s in engineering, trained in Michigan and Ohio, want to move to Colorado? If all young people do not get a good education, what will happen to the high per capita income in the state?

The parts of the nation that are having a “Baby Boomlet” (90 percent of which is in the south and west) are reporting an increase in ELEMENTARY enrollments. The disconcerting thing about Colorado is the increase in secondary enrollments in 1989, with no increase in elementary populations. One interpretation is that the number of young families with children moving to Colorado will decline in the 1990s or that others have moved away. This does not bode well for the future of Colorado’s work force. In addition, the state has never liked pay as you go financing, preferring to finance present projects on anticipated revenues from future taxpayers moving to the state. During the 1990s, state projects will have to be financed from current state revenues, and the educational investments will have to show the ability to finance increases in the 1990s, with some decreases in the number of students in the following decade. Yet, the percentage of minority and “special needs” students is going to increase long into the next century. Colorado’s leaders will have their hands full in planning for education over the next twenty year period.

In order to complete our discussion, we should take a moment to look at the higher education data in Colorado. See Higher Education Profile next page.

Colorado has a large number of institutions of higher education for a mountain state. However, the two-year enrollment is a lower percentage than in most states. This is probably due to the large number of out of state students who come to Colorado’s four-year institutions, especially the University of Colorado at Boulder. According to state authorities, 83 percent of new students in 1986 were Colorado residents. The percentage of full-time students is proportionately higher than expected, probably for the same reason.

But compared to other states, Colorado higher education seems over-governed. There are six “college systems” in Colorado, each with its own governing board. Even the School of Mines has its own governing board. The Commission on Higher Education has done some

COLORADO'S HIGHER EDUCATION PROFILE, 1988

Public Four-Year Institutions	13
Public Two-Year Institutions	15
Private Four-Year Institutions	17
Private Two-Year Institutions	9
Total Institutions	54
Vocational Institutions	134
Student Enrollment:	
Public Four-Year Institutions	106,571
Public Two-Year Institutions	55,023
Private Four-Year Institutions	17,708
Private Two-Year Institutions	4,281
Women Students (as a percent of all students)	52.0%
Minority Students (as a percent of all students)	11.9%
Minority Students In Two-Year Campuses	52.0%
Full-Time Students	59.6%
Percent Change In Enrollment, 1978-88	+ 19.2%
Average Tuition and Fees (Public Four-Year Institutions)	\$1,482
Average Tuition and Fees (Public Two-Year Institutions)	\$ 623
State Funds for Higher Education Operations	\$475,181,000
Percent Change, 1986-88	+ 12%

Source: Chronicle of Higher Education, *Almanac*, September 6, 1989

excellent studies, particularly of minority retention and academic progress. The Commission has also studied the options for the Auraria Higher Education Center in Denver, a location where many institutions, programs and students meet in confusing circumstances. But this is not a "superboard," and the state legislature continues to hold to itself the right to scrutinize higher education very carefully. This supports our general notion that it is hard for Colorado to organize itself to accomplish an agreed-upon goal.

Both of the largest universities do well in garnering research grants. In Fiscal Year 1988, the University of Colorado ranked 20th in federal research and development (R&D) funds with \$96 million, while R&D funds from all sources ranked 28th at \$128 million. Colorado State University ranked 59th in federal R&D funds at \$44.6 million, and ranked 77th in R&D funds from all sources at \$59.3 million. (Both institutions do better from the federal government than they do from private foundations.) The issue is important, given the state's desire to diversify the economy by attracting high tech businesses to Colorado. Indeed, Colorado has become so competitive in R&D that some of the giants like California are becoming

a trifle concerned, given the fact that the University of Colorado got more federal R&D money than did Cal Tech! (In Colorado, you can do research and breathe too, at least if you pick your spots carefully.)

In sum, the state has a diversified system (s) of higher education, comparatively well supported by the legislature who, nevertheless have a hard time keeping their hands off the institutions. Although comparative data are not available, it must cost a lot to govern Colorado's colleges and universities. Minorities are not overly well represented among the students, and Hispanics are disproportionately in community colleges and not at the flagships. Although data are still sketchy, it appears that few Hispanics graduate from four-year programs. (On the other hand, we are now finding out that in general, only about 15 percent of American students graduate from four-year programs in four years.) There seems to be considerable interest in Colorado in working on the problem of minority school success, kindergarten through graduate school, an important issue for the nation as well as the state. Colorado could lead on this issue, if the state decided it wanted to.

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SUMMARY AND RECOMMENDATIONS

It is natural for most average U.S. citizens to be very concerned about Colorado's future, because a large percentage of us plan to take a vacation there at some time. Thus, Colorado's performance during the 1980s, lackluster at best, is of real concern to many. If Colorado cannot get its act together in order to save its truly gorgeous environment, then what hope is there for Ohio?

During the 1990s, things should get better, as business services and various kinds of "tech" increase in the state. But the major dependencies—on agriculture, minerals and energy extraction—remain. Even tourism, an expanding part of the Colorado economy, generates many jobs that pay minimum wage and very few jobs that pay well. Colorado has actually done better than most of the mountain states during the decade, but the tough problems remain for the "every man for himself" state. Here are some suggestions.

1. The Colorado Hispanic population is large and growing. It has been around Colorado for a long time, and successful Hispanics are making their way into government and business. Just as the Greeley "Dream Team" has taken on the task of reducing high school dropouts to a handful by 1995, so the state could decide to lead the nation in the percentage of minority students who graduate from high school, go on to college and FINISH. This would not require vast fiscal resources, but would require the coordination of human resources in a very sophisticated way.

2. Colorado adults have more college degrees per capita than any other state. Yet the state has had great difficulty in becoming the "education state" just as President Bush has had difficulty becoming the Education President, and for some of the same reasons. Because so many well-educated people have moved to Colorado after their educations were paid for by another state, Colorado has assumed an educational advantage they have not paid for—the "scenery factor." In the future, educational development should be accomplished by "pay-as-you-go" financing rather than assuming that future population growth will increase the tax base by a certain amount.

3. Population densities will increase in the Front Range, as will ethnic, cultural and linguistic diversity. Not just more Hispanics from Mexico—most of the world will be represented in Colorado's population by the year 2000. This diversity could be a source of great energy, innovation, and new businesses for Colorado, or it could be diverted to increasing the percentage of at-risk children in the state. The densities in the Front Range are great enough for a variety of new small business starts to be made successfully, especially small businesses run by the more diverse population now moving into Colorado. The state could do much to enhance the starting of small businesses.

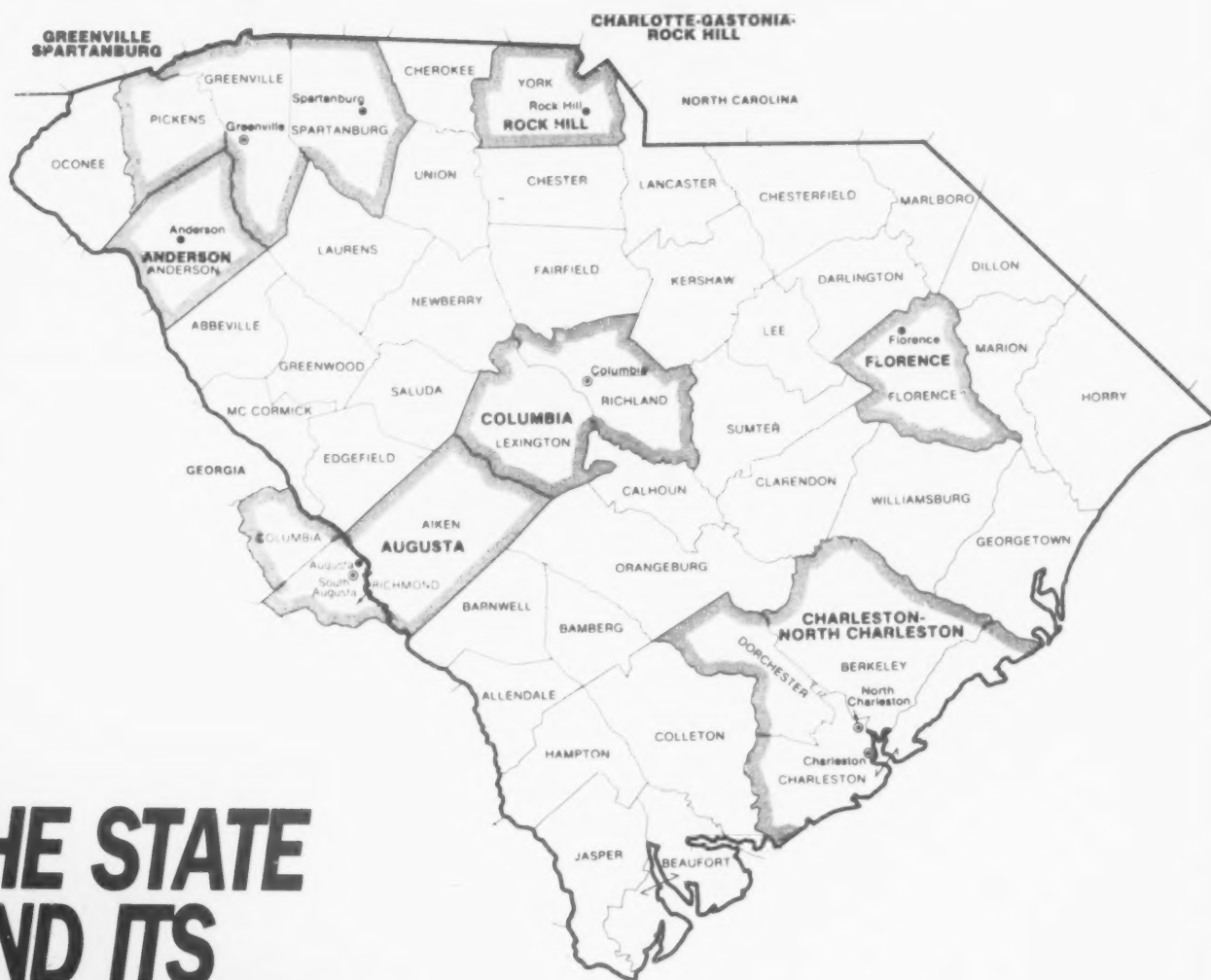
And how do we get more black and Hispanic middle-class families to take up skiing so that they will come to Colorado and buy things being sold by the minority small businesses in Colorado? (American Hispanics buy about \$140 billion of goods and services each year, and blacks buy about \$250 billion.)

4. Because populations are so concentrated in the Front Range, it is easy to overlook rural poverty in Colorado. In some areas, essential services are very costly (a "Meals on Wheels" program that has to go 20 miles between stops will be much more costly than the same delivery schedule in a high density suburb where a driver can make 10 deliveries in the same apartment building). Some of these areas have a number of American Indians, a group particularly poorly served in the past. The same argument could be made for handicapped populations in Colorado, not well served at present. Although rugged individualism is a splendid thing, it can be tempered with compassion with little harm done. Just as the state needs to get together on a broad brush environmental strategy, it could also get together on a general strategy to increase equity, which might also increase economic opportunity and provide some jobs in the sparsely settled regions. The excellence of much of the Colorado higher education system is not yet available to all.

5. It may be that in the years to come, more initiatives for improving education will come from the local level in Colorado. At the moment there seem to be many promising examples in the state—Denver's coalition—building activity, the Greeley "Dream Team" and the achievements of the Academy School District are three among many. While these developments are commendable, there is a need for a sense of urgency for improved education across the state. The Governor and legislature must share this burden—Colorado must stop relying on the in-migration of well-educated people from other states. Colorado must grow its own.

SOUTH CAROLINA:

R5500-2,21F ¹²/₉₆



THE STATE AND ITS EDUCATIONAL SYSTEM

BY HAROLD L.
HODGKINSON

ACKNOWLEDGMENTS

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COVER NOTE:

The cover map makes clear the South Carolina metropolitan areas, especially those that overlap into Georgia—Augusta and North Carolina—Charlotte-Gastonia-Rock Hill (see MSA map page 4). Unlike many southern states, the capital is located almost in the middle of the state, which provides numerous advantages. We can also see that there are large areas not included in the metro areas, resulting in 40 percent of the population living in "non-metro" areas, mostly rural. Population "maps" can be very useful to people including planners, marketers—and educators looking for the human equivalent of rivers, forests and mountains.

**SOUTH CAROLINA:
THE STATE AND
ITS EDUCATIONAL SYSTEM**

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SOUTH CAROLINA: THE STATE AND ITS EDUCATIONAL SYSTEM

Although every state has its unique aspects, the history and development of South Carolina has more claim to uniqueness than most. "The South" as an idea was virtually created in South Carolina. South Carolina was the first state to sign the Ordinance of Secession in 1860, the first firing at Fort Sumter, the most profitable slave-based economy, first in rice/indigo and then in cotton, all in the Charleston lowland swamps, and first in creating a "blueblood" aristocracy virtually identical to that in Boston. One of the best summaries of the state's history concludes that for over 250 years, preoccupation with race . . . "not only subordinated other political issues, but for most of the period stunted the growth of the state economically, culturally and intellectually and forced thousands of the most ambitious natives of the state to seek their fortunes elsewhere."* The major concern seemed less a long hatred of blacks and more of an interest in maintaining the aristocracy.

The contrast is best seen in the tense, military-style enrollment of James Meredith at the University of Mississippi and Governor Wallace's "They Shall Not Pass" speech, to the peaceful reception of Harvey Gantt when he became the first black student to enroll at Clemson University in 1963, thanks in part to the skillful efforts of then-Governor Ernest Hollings. Indeed, today South Carolina's leadership seems more interested in solving serious social and economic problems than it is in re-fighting the Civil War. The "action" today includes not only Charleston, still a unique and aristocratic city and Columbia, the state's banking, education and government center but also Piedmont, Greenville and Spartanburg, nestled next to Interstate 85, and the largest "suburban growth corridor" in the state, including new businesses, shopping centers and housing developments. Charleston has both the Spoleto Festival, celebrating the European heritage as well as the most diverse array of film, jazz and folk performances, and the St. Cecilia Society which

guards Charleston's upper class traditions as carefully as it did in 1762.

As is true of many southern states, South Carolina lacked a large middle class for much of its history. Even today, the wealthy aristocrats and the poor are over-represented in the state while the middle income people (and jobs) are hard to find. In addition, blacks represent about 30 percent of the state's population, and 44 percent of its school-age youth, some of the highest rates in the south. (During the glory days of the rice-cotton economy—fueled by slaves—blacks were more than half the population of South Carolina, which explains some of the sustained reluctance to giving them the franchise.) Although it seems obvious today, no state can thrive and prosper if 40 percent plus of its citizens are poorly educated and live much of their lives in poverty. (If one adds white poverty to that, far more than half of South Carolina's citizens have been poor, which has been true for virtually the entire history of the state.)

As the 1980s began, it was clear that South Carolina needed to do something spectacular to deal with a constantly sagging economy, low educational levels, major health problems and high crime rates, plus one of the lowest life expectancy rates in the nation. More than any other state, it has opted for a strategy based on education as the centerpiece for comprehensive development, in the form of the Education Improvement Act (EIA) of 1984. The function of this report is not to evaluate the reforms proposed and implemented in South Carolina, it is too soon for such analysis. What this report can do is to provide the demographic context in which the reforms have taken place, which will allow for some comments about future opportunities.

SOUTH CAROLINA'S DEMOGRAPHY

To begin, we need to look at the basic demographic data provided by the United States Census Bureau. Some basic categories as well as ranks are presented in Table 1 on page 2.

*Quoted in N. Peirce and J. Hagstrom, *The Book of America*, 1984.

Table 1
SOUTH CAROLINA'S PROFILE AND STATE RANK

		Rank
Total Population, 1989	3,512,000	25th
Population Increase, 1980-89	+ 12.5%	16th
Population Projection, 2000	3,906,000	24th
Percent of the Population:		
Under Age 18, 1988	27.3%	13th
Age 65 and over, 1988	10.9%	37th
Black Adults, 1988		
Hispanic Adults, 1988	693,000	16th
	15,000	36th
Percent of the Population Living in Metro Areas, 1988		
	60.5%	31st
Births (per 1,000 population), 1987		
Percent of Births to:	15.4	20th
Unmarried Women, 1987	29.0%	6th
Teenagers, 1987	16.6%	9th
Infant Deaths (per 1,000 live births), 1987	12.7	2nd
Life Expectancy Rate		
	71.8 years	49th (L.A. 50th)
Violent Crime Rate (per 100,000 population), 1988		
Change in Crime Rate, 1987-88	741	8th
Total Prisoners, 1988	+4.9%	6th
	13,745	
Percent of the Population Who Voted in 1988		
	38.9%	49th
Social Security Recipients (as a percent of the population), 1988		
Food Stamp Recipients (as a percent of the population), 1988	14.9%	34th
	7.3%	18th
Change in Non-Agricultural Employment, 1980-88		
Service Jobs (as a percent of all jobs), 1988	+21.8%	14th
Unionized Manufacturing Jobs (as a percent of all jobs), 1988	17.7%	48th
Increase in Retail Sales, 1982-88	3.1%	49th
	+43.5%	18th
Motor Vehicle Deaths (per 100,000 population), 1987		
Miles of Travel per Road Mile, 1987	31.7	2nd
	476	25th
Energy (percent nuclear), 1987		
	61.0%	3rd
Bank Deposits Per Capita, 1987		
Disposable Per Capita Income, 1988	\$3,989	50th
Change, 1980-88 (in 1982 dollars)	\$11,102	41st
Per Capita Expenditure, State and Local governments, 1987	+19.0%	16th
	\$2,121	42nd

Source: U.S. Bureau of the Census, *Statistical Abstract of the United States, 1990* and CENDATA, the on-line data base maintained by the U.S. Bureau of the Census.

What one sees from this forest of numbers is a state that since 1980 has made a strenuous and usually successful effort to move from the bottom to the middle in terms of state ranks. Some things can be done relatively quickly (increase the number of new jobs) while other things seem to take a lot longer (reduce the crime rate).

The population is gradually increasing, due both to some net in-migration and a reasonable birth rate. (However, the spectacularly short life expectancy in the state needs serious analysis.) The state has a higher proportion of young people in its population than the nation as a whole, and many fewer older adults. A large percentage of citizens are black, much larger than most other southern states. (Forty-five percent of South Carolina's public school students are minority compared to 32 percent in North Carolina and 39 percent in Georgia.) Although metro populations generally have been growing, 40 percent of South Carolina's people live outside of the state's seven metropolitan areas. (One unfortunate thing about Census data is that we are told little about "non-metro" populations. Non-metro is definitely not the same as "rural.") Thus, there is little we can learn about this 40 percent of South Carolina's people from national data.

While the birth rate is middle range, **a VERY high percentage of children born in the state are born at risk; first, of dying in the first year of life; second, of having a teenage mother; third, of having unmarried parents.** Almost a third of South Carolina's children are born out-of-wedlock, a very high figure. (Although it is no secret, the U.S. rate of out-of-wedlock births is now 24.5 percent of all children born, a figure which should generate great concern but does not. It is sad but true that the abortion debate has left us with little energy and concern for the children who ARE born.) If you add to these numbers the very high number of auto fatalities as well as the high rate of violent crime, you have some of the reasons behind the very short life expectancy of South Carolinians. (And the state's 13,745 prisoners cost the taxpayers \$274 million a year just to maintain—enough money to make a big difference in other urgent state spending priorities. The only known way to reduce the crime rate is to increase the educational level of a state's citizens, but it takes longer than most politicians can wait.)

Although many good things have happened to South Carolina in the eighties, it is still discouraging to realize that only 38.9 percent of the state's registered voters went to the polls in November, 1988. (Only Georgia was lower at 38.8 percent.) Until the people truly feel that it is THEIR government, participation will be low. It is yet unclear whether or not the educational reform effort has had this effect. It is clear that the more educated people are, the more they vote, and the older people are the more they vote. Given South Carolina's large population of non-voting youth, and large population of poorly educated adults, we may have some of the components of the low voter turnout.

Poverty and dependency are concentrated in the state's young population as well; compared to other states, a small percentage of citizens are on Social Security, while the state ranks much higher on food stamp recipients compared to other states. (Food stamp recipients tend to be young families.) It also seems that poverty rates are higher in the non-metro areas of the state—rural poverty remains the most tenacious kind of poverty, due to low educational levels, the lack of small business starts, job availability, access to needed social services and to what might be called media invisibility.

On the job front, South Carolina has made major progress in creating jobs, up 21.8 percent during 1980-88 and ranking 14th in the nation. However, the "high end" of the services—business services, financial services, computer services, insurance, real estate—are poorly represented in the state. While the state has developed some jobs in the service industry, they tend to be tourism-related (janitors, maids, waiters-waitresses, clerks) which does not move the average pay level up as one might wish. The state ranked eighth in the percentage of manufacturing jobs in 1986. Again, because only three percent of the state's jobs involved collective bargaining through union representation, average pay levels are lower than one might expect from the increased job numbers during the eighties. Ironically, low wage rates are an incentive to attract new businesses as well as a repellant to new workers!

Although some of the fluctuations in the manufacturing economy are calming down in 1990, this is not true for textiles, machine tooling establishments and wood products, which will continue to have a rollercoaster ride in the 1990s, and the South Carolina economy will be along for the ride. Since Governor Hollings, the strategy has been to entice EXISTING industries to relocate in South Carolina—low wages, right to work, and tax abatements were all successfully used in this strategy. What is missing from the strategy is the incubation of *locally developed* businesses and jobs that have the capacity to expand and move people into middle-income status. Educational improvements now underway should make this strategy more viable in the 1990s.

In some ways, the best economic news is the increase in retail sales during 1982-88, up 43.5 percent and ranking 18th in the nation. (That's 18th in *increase*, not in sales.) The reason is obvious—disposable per capita income went up 19 percent from 1980-88, ranking 16th in the nation in *increase*. (However, in actual per capita income, the state ranked 41st in 1988, meaning that the efforts have gotten South Carolina comfortably off the bottom but not yet at the middle in terms of per capita income.) The irony here is that people are buying, not SAVING—the state is 50th in bank deposits per person. Over the long pull, this very low savings rate will act as a drag on many other reform efforts funded through the investment of savings by banks and other lending institutions. By

1987, state and local government per capita expenditures ranked 42nd, up from 44th in 1986. Increased personal savings could well increase the efficiency of this government investment in the future, as well as the stability of family, local and state economies. Personal savings is a form of venture capital.

Two other issues need brief discussion. The first is the state's long love affair with anything nuclear, starting with the AEC Savannah River nuclear plant in Aiken and Barnwell counties in 1950, and extending during the following decades. At one time South Carolina was the dump for 85 percent of the nation's nuclear waste, and plutonium and tritium are still reprocessed in South Carolina. In 1987, 61 percent of the state's energy production was nuclear, ranking third. Even with former Governor Riley's courageous decision after Three Mile Island to reverse this addiction to things nuclear, there are still many problems remaining. On the other hand, it was a major source of much-needed federal money. (The only competition was the amazing ability of the late Mendel Rivers as Chairman of the House Armed Services Committee to bring military installations into his native Charleston.) While progress has been made, the state's nuclear dependency is still far too high.

The second area of concern is the extraordinarily high rate of motor vehicle deaths in the state, ranking 2nd in 1987 (and 4th in 1986) even though the state ranked 25th in miles of travel per mile of road in 1987. Having driven through much of South Carolina, the roads do not seem to be especially hazardous in terms of hairpin turns, lack of shoulders, etc. Nor is the weather a good explanation. The rest of the vehicular profile looks fairly normal, except for vehicle miles per licensed driver, where South Carolina ranked 9th (California, amusingly enough, ranked 24th in the same year, 1986. Number one was, of course, Wyoming.) Every driver in South Carolina drives a LOT of miles every day. But they do not speed—an earlier study shows the state 40th in people driving over the speed limit. Every state knows the number of speeders from airplane and helicopter surveys, even if no one knows your name or license number. Can there be that many drunk drivers in the state? The data are very shaggy on that point. But the state has more *poorly educated* drivers than any other state, as the following paragraph will explain.

The very low life expectancy rate in South Carolina is a combination of things, including the high rate of motor vehicle deaths, the large number of infants who do not survive the first year of life, as well as medical care which is heavily used but not well distributed to the non-urban areas where 40 percent of the people live. The high rate of accidental death in addition to motor vehicles has to do with the fact that the state was number one in adults with less than eight years of elementary school education in 1980—unable to read the labels on household products containing dangerous materials, highway signs, etc. Cancer and heart death rates are not unusually high, suggesting that the air and water are not killing people, and suicide rates also are fairly low. Odd as it may sound, EDUCA-

TION may be the best route to increasing life expectancy in South Carolina, as ignorance is the key cause of short life spans in the state. "Graduate from high school so that you'll live longer" sounds peculiar, but is fully supported by the facts for this state.

EDUCATION may be the best route to increasing life expectancy in South Carolina, as ignorance is the key cause of short life spans in the state.

SOUTH CAROLINA'S METROPOLITAN AREAS

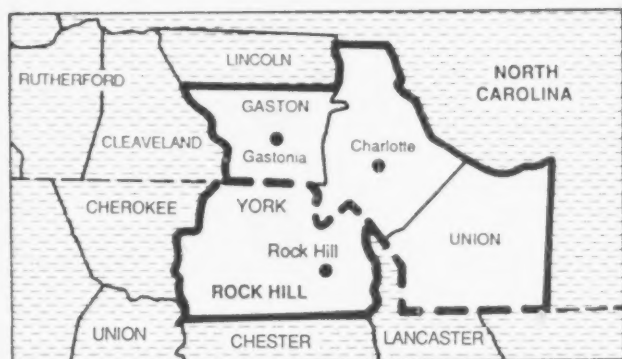
Before looking at education, a brief look needs to be taken at South Carolina's metropolitan areas. If we want to limit our view to those places defined by the government as MSAs (Metropolitan Statistical Areas), there are seven, but we will limit ourselves to four: Charlotte, Columbia, Greenville-Spartanburg, and Charleston (see map below).

Four Most Important MSAs in South Carolina



Charlotte is known as the Charlotte-Gastonia-Rock Hill NC-SC MSA. Of its seven counties, only York is located in South Carolina. Although South Carolinians usually neglect this metro area in their planning, it is a strategic error, as we shall see. (Aiken County is a part of the Augusta MSA but seems to have less potential for influencing South Carolina.) Because metro areas are where growth, money and people are increasingly concentrated, more analysis is done of these places than any others. Let's look briefly at the four most important MSAs in South Carolina.

Charlotte-Gastonia-Rock Hill, NC-SC



This is a moderately large metro of 1,127,700 people in 1989, ranking 42nd of the 100 largest metros in the nation. Of the 34 southern metropolitan statistical areas, it ranks 13th in size. The education of its 1989 work force of 655,000 is a key problem—it ranks 2nd of the 100 MSAs in adults without a high school diploma. (Even among the 34 southern MSAs it ranks second.) One of the major dampers on economic development recently was Hurricane Hugo—a major blow to Charlotte, directly in its path, and particularly to York County, which suffered over \$22 million in damages. Because disaster money has been slow to arrive from the federal government as well as private insurance companies, future growth in this metro area may be altered.

Charlotte is important to South Carolina because of its attempts to shed its dependence on the ailing textile and apparel industries and move into the "high end" of the services by increasing business and financial services and attracting corporate headquarters. Charlotte has done very well in these areas. (Chief competitors are Atlanta and the Raleigh-Durham area.) Both NCNB and First Union Corporation, the largest financial institutions in North Carolina, are located there. Because the super-regional banking compact allows these institutions to expand OUTSIDE North Carolina, its implications for South Carolina's development are major.

In addition, its location, excellent highway, railway, the newly established inland port facility and air transport systems suggest major growth in trade and distribution services. Because discretionary incomes are fairly high, retail and consumer markets are increasing. Major problems are loss of jobs in textiles and apparel, as well as low educational levels in its work force. But growth of Charlotte will have significant impact on South Carolina's future, and a "southern strategy" needs to be developed between the governors of the two states.

Columbia, SC

One of the major advantages in being the state capital is the stability of the government work force! Almost one-quarter of the jobs in this two-county metro area are in government activity. Because governments require goods



and services to be purchased, the number of jobs "upstream and downstream" of each government job is about three to one. In addition, Columbia is South Carolina's financial, insurance and business services center, many of these jobs providing services to government agencies.

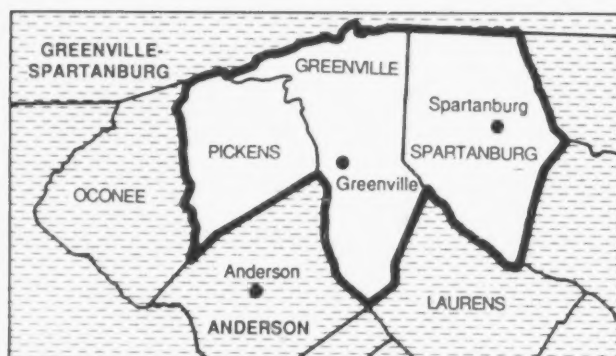
Its location in the middle of the state allows Columbia to be linked to north-south and east-west markets along Interstates 26, 20 and 77, providing one day access to 19 percent of the nation's urban markets. Because manufacturing has been a comparatively small part of Columbia's development, there is less to "undo" than in other parts of the state.

Its 455,000 residents in 1989 reflect a work force of 287,000 that is comparatively well educated—39 percent of its adult population have one or more years of college, ranking this metro 27th of the top 100 metros in the nation, and 6th among the 34 southern MSAs. There is a large black population, about 29 percent, and a very small group of people over 65—only about 9 percent compared to 12 percent in the 100 MSAs.

Columbia's institutions of higher education enroll some 30,000 students, and the quality of life created by the University of South Carolina, the medical school, health and business services and access to cultural and recreational activity should allow Columbia to retain its educated citizens and, by having a large number of families with young children, increase its educational levels in the future. Although wage rates are not high, the cost of living is proportionately low. While growth rates have been slow compared to the city of Atlanta or the state of Florida, they have been steady. It may be that for the next decade, slow and steady growth will show some advantages over the "super-growth" MSAs that cannot keep up with themselves.

Greenville-Spartanburg, SC

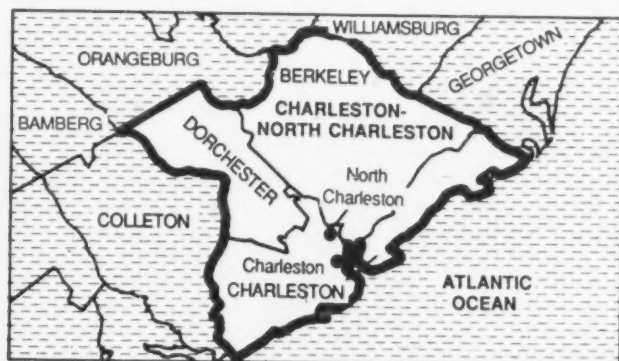
This metropolitan area with a 1989 population of 627,600 people has been "typical" in its dependence on textiles and apparel. However, due to some shrewd planning over the years, it has completed a successful transition to a diversified economy, mostly due to its ability to attract foreign and U.S. corporations. The appeal has



been to its high quality of life, resembling small town living in some ways, but with excellent access to recreation. Again, low wages are matched by low cost of living. Thus, retail markets here are high on necessities and lower on the (very profitable) luxury markets. Seventeen percent of the population is black (small for the state as a whole) while people over the age of 65 are a somewhat larger percentage here (11.8 percent) than in the state as a whole.

The work force has a classic pattern: 1st of the 100 MSAs in the percentage of adults without a high school diploma (43 percent in 1989). With only 28 percent of adults having one or more years of college, the Greenville-Spartanburg area ranks 93rd of the 100 top MSAs, and 32nd of its 34 southern metro competitors. However, with the rapid increase in rubber, plastics, electronics and production machinery, there is something of a labor shortage in the MSA. Unemployment rates in 1989 touched 3.4 percent, the fourth lowest rate in the South. (Apparently, existing workers can be trained for the new manufacturing jobs fairly easily.) A larger problem may be the expansion of the "downstream" businesses: management and consulting, personnel, engineering, architecture, surveying, and other professions that go with economic growth. In fact, job growth in engineering, architecture and surveying has been over eight percent for the last three years. High paying business service jobs have also grown rapidly. It would be very bad if employers had to bring in workers from out of the state for these well-paying jobs if South Carolina could not "grow its own."

Charleston, SC



Although the "Queen of the South" to many, this city of about 68,000 has actually lost some population during the eighties. However, the MSA had reached 502,200 in 1987, up 16.7 percent from its 1980 total of 430,346. The increases have been largely in Berkeley and Dorchester counties, as well as Charleston County outside the city. Rich in history, Charleston is a major center for commercial shipping and has had a thriving tourism economy for many decades.

Unlike many areas in South Carolina, Charleston has a high rating on health care, ranking 41st of the top 100 MSAs on doctors per 100,000 population. Even in this cultured CITY, the METRO has only 15 percent of its adults who have one or more years of college. While it ranks 51st in *increase* in per capita income, it ranks 210th in per capita income! Only about 19,000 workers are engaged in manufacturing, a true indication of the great differences between lowland and upland areas of the state. Although one thinks of Charleston (the city) as a charming place to retire, the MSA ranks 247th in Social Security recipients. On the other hand, the MSA ranks 35th in the number of persons with incomes below the poverty line.

Charleston is one place in the state where retail sales look good. It ranks 40th in percent change in retail sales (up 70 percent from 1980-87) but only 228th in *dollars* of retail sales per capita, the old story of percentage gain but real number pain. Charleston's future will lie less with the lovely city, almost an anachronism given the fact that the city's population is only about 13 percent of the total MSA. The variation will be in Berkeley and Dorchester counties, with a higher population growth rate from 1980-87 than any other counties in the state, as well as the 230,000 people who live in the county of Charleston but not in the city.

Summary

Given the income levels in the state's MSAs, it is clear that rural poverty in the state's non-metro areas is a major issue in economic development. Because businesses are concentrated in MSAs, business support for the Education Improvement Act of 1984 will stress the metro area focus. Although most people in non-metro areas in South Carolina are working, they are working at very low-wage jobs.

One hundred years ago, the booming part of South Carolina would be the lowlands. Today, it would seem to be the Midlands-Piedmont areas, as the textile and apparel industries are supplemented by the growth areas of business and financial services, adding greatly to the middle class populations in those areas.

SOUTH CAROLINA'S EDUCATIONAL SYSTEM

Now that we have a sense of the demographic context of the state, we can narrow our focus to the educational system itself. While the schools will reflect most of the demographic realities we have already described, they also have been the major instrument for the state's bootstrap operation during the eighties. Let's start with some basic data about the system as shown in Tables 2 and 3 on page 8.

The numbers paint a very interesting picture. First, there is a small "Baby Boomlet" in South Carolina, now working its way through elementary school, as seen in the opening enrollment figures. However, after the year 2000, youth populations in the state (and in the nation) decline, as seen in Table 3. The minority percentage in South Carolina remains almost constant, while the nation's minority youth move from 30 percent in 1990 to 38 percent in 2010. (There is little in-migration of blacks or other minorities into the state, and a static birth rate of the mostly black minority population, and little immigration from other nations to increase minority youth percentages.) If youth decline, as is the case in South Carolina and the nation, while the total population of state and nation are increasing, the inevitable result is a rapid aging of the population, with youth in short supply except for the brief "Boomlet" period.

South Carolina is one of a small number of states that actually increased the percentage of local tax contributions to education during the 1980s, while state and federal percentages declined. This should encourage more local participation in educational questions. In addition, teacher salaries and per pupil expenditures both went up during the eighties, improving the state's ranking in these two areas considerably. But the biggest and most impressive gain was in one of the better "level of effort" indicators—per pupil expenditures as a percent of per capita income. In a brief six-year period, South Carolina moved from 37th to 17th! (Note that the NUMBER of dollars per student is still small, but given the state's total number of dollars for ALL purposes, the level of effort in education is truly excellent.) In addition, the student-teacher ratio became more favorable, from 19 to 17, due partly to some enrollment declines early in the decade. However, note that the student-ADULT ratio is nine to one, meaning that for every teacher in South Carolina, there is about one non-teaching adult on the payroll.

On the percent of high school graduates who have taken Advanced Placement (AP) courses, the state moved from 17th to 6th in the nation, suggesting that the "high end" of secondary school graduates is good indeed. But until 1984, students could just take the courses without taking the (difficult) exams. The good news is that there was an increase in AP students earning college placement-credit from 1984 to 1989, and that the percentage of students scoring three or better on these difficult tests is among the highest in the nation. The bad news is that the average SAT score is on the bottom of the 22 states that use the test, and those that score over 600 (high) on either the verbal or math sections was the lowest of the 22 states using the SAT test in 1988.

The true irony here is that SAT scores IMPROVED by 48 points in South Carolina, making it FIRST in improvement of the 22 states, while the mean score itself had barely moved off the bottom (21st in 1989, 22nd in 1990).

The South Carolina average SAT score in 1988 was 838 while the 22 state average was 906! It is very hard to win playing catch-up if you start at the back of the pack.

Part of the difficulty is the high percentage of students who are below the poverty line—8th highest in the nation. It is hard to imagine a strategy that would change this figure very rapidly. As a result, the improvement in the graduation rate was minimal in the state—youth poverty is always associated with high rates of school dropout. Although real progress has been made in the eighties in the expansion of the black middle class, there is still a great deal of black poverty in both the rural and the metro areas of South Carolina, and black students are 44 percent of the state's total public school enrollment. It's hard to imagine how South Carolina can improve without significant improvement in the lot of the state's black citizens. No one could fault the efforts being made, but the reduction of youth poverty proceeds at an agonizingly slow pace.

In looking at the data from the National Assessment of Educational Progress, scores for black students have gained consistently during the decade, but the gap remains very wide indeed. It is important to understand that when we compare scores of students from wealthy backgrounds in any group with students from poor backgrounds of that same group, students from wealthy backgrounds always do better. In predicting school achievement, class (socio-economic status) is a better predictor than race, as Figure 1 on page 9 illustrates.

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Thus, in interpreting performance data in South Carolina, we must assume that if more black families were able to move into the middle class, the educational attainment of their children would rise. (Recent research indicates that the best single predictor of success in college is whether or not the parents were college graduates. It is a better predictor than high school grades or SAT scores.)

The Education Improvement Act of 1984

The comprehensiveness of this major legislation is most unusual. The strategy of the Education Improvement Act (EIA) included separate efforts to improve student performance directly, to improve teacher performance and morale as well as salary, to better prepare administrators and to update the skills of present administrators. Very specific testing programs were set to measure quality of performance, and (MOST unusual) a series of incentives were set to reward students, teachers, administrators and districts for superior performance. In addition, a series of indicators were established to see whether performance was on track, and how people felt about what was going on. Although this report is not intended as a comprehensive assessment of the Act, some comments may be useful, given the author's involvement in education reform efforts.

Table 2
SOUTH CAROLINA'S EDUCATIONAL SYSTEM

	<u>1983-84</u>	<u>1988-89</u>		
Public School Enrollment:				
Elementary	420,000	438,600		
Secondary	180,800	176,900		
Total Students	600,800	615,500		
School Funds:				
Federal	12.0%	8.0%		
State	59.3%	54.5%		
Local	28.6%	37.5%		
			<u>Rank</u>	<u>Rank</u>
Average Teacher Salary	\$17,500	\$25,060	45th	34th
Per Pupil Expenditures	\$ 2,431	\$ 3,465	44th	41th
Expenditures (as percent of per capita income)	21.9%	27.0%	37th	17th
	<u>1982</u>	<u>1989</u>		
Student-Teacher Ratio	19.0 to 1	17.2 to 1	33rd	30th
Graduation Rate	63.8%	64.6% (1988)	42nd	45th
		66.9% (1989)		40th
Schools Offering Advanced Placement (as a percent of all schools)	26.9%	65.5%	22nd	5th
Percent Seniors Taking AP	5.1%	17.5%	17th	6th
Percent Scoring Three and Higher on AP		12.8% (1988)		8th
		13.1% (1989)		7th
SAT Score	790 (22nd of 22 States)	838 (21st of 22 States)		
Minority Students (as a percent of all students), 1987	45.0%		7th	
Poverty Students (as a percent of all students), 1980	20.7%		8th	
Handicapped Students (as a percent of all students), 1988	12.2%		14th	

Source: State ranks are taken from the U.S. Department of Education's *State Education Performance Chart*, May 1990. Other data are from National School Boards Association, *Education Vital Signs*, 1989.

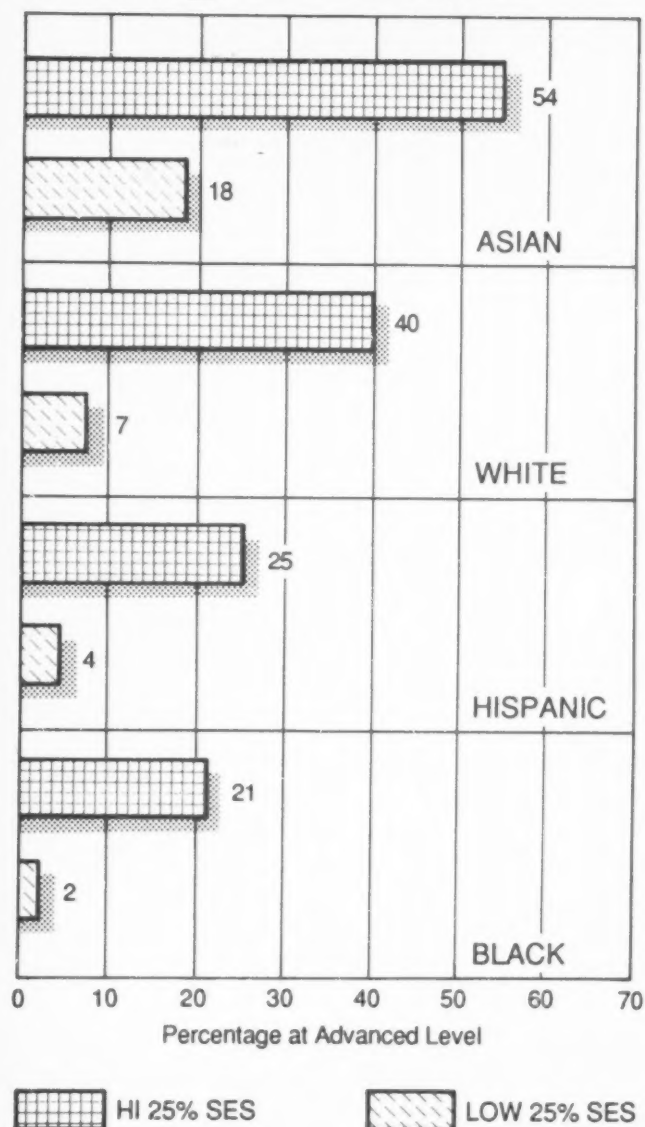
Table 3
CHILDREN IN SOUTH CAROLINA AND THE UNITED STATES

	<u>1990</u>	<u>2000</u>	<u>2010</u>
Number of Children Age 0-18 Years, South Carolina	946,000	968,000	931,000
Percent Minority	39.9%	39.6%	40.1%
Total South Carolina Population	3,549,000	3,906,000	4,205,000
Total Children Age 0-18 Years, United States	64,031,000	65,717,000	62,644,000
Percent Minority	30.7%	34.0%	38.2%
Total U.S. Population	249,891,000	267,747,000	282,055,000

Source: *American Demographics*, May 1989.

Figure 1

Percentage of Eighth Graders in Low and High Socio-economic Groups Who Are Proficient in Advanced Mathematics, by Race and Ethnicity, 1988



Source: U.S. Department of Education, National Center for Education Statistics, *National Education Longitudinal Study of 1988, A Profile of the American Eighth Grader*.

After only five years of operation (a blink of an eye in educational time), a thorough appraisal showed that the program had achieved or exceeded its objectives in almost every area. Particularly encouraging were the student test results on minimum basic skills standards, CTBS test score gains, gains on the SAT. (Only student absences per day and high school graduation rate improvements fell short of the goal.) More students are taking challenging college preparatory courses, more students are passing

the exit exam required for high school graduation (now up to 94 percent) and increases in Advanced Placement we have already discussed.

While these test gains are cause for celebration, there is another achievement which may be even more important in the long run—SOUTH CAROLINA'S TEACHERS ARE SOLIDLY BEHIND THE REFORMS. In most other states, education reform has come from the governor's office and has been driven straight down to the individual classroom, with little chance for the individual teacher or administrator to "buy in" to the program. It is in the classroom where the "educational rubber" meets the "educational road," and in many reform efforts, the classroom is the one place untouched. One gets the impression that in South Carolina, classrooms and schools are BEHAVING differently as a result of the implementation of the Act. This is a most unusual achievement.

It also suggests that the NEXT set of goals, for the year 2000—cut the dropout rate in half, increase college attendance and workplace-ready skills, increase readiness for first grade and develop greater problem solving and creative thinking skills—could be achieved, because the teachers and administrators who are the only ones who can accomplish them are on deck and ready to go. This is probably the most skillfully implemented state-based program in the nation, but it is only half complete. Until the high school graduation rates go up (increased access to good jobs for a larger share of South Carolina's youth and increased college attendance rates, both adding to the state's future middle class) the reforms that have been accomplished will have little long term effect. Fortunately, with teachers, administrators, as well as the business leadership of the state behind the educational reform effort, it would appear that the goals for 2000 can (indeed MUST) be achieved.

Higher Education In South Carolina

The lack of a diversified economy during this century has led the state away from the development of a comprehensive system of higher education. But during the last two decades, the number of public four-year institutions doubled to twelve, while community colleges had reached a total of 21. Many institutions had developed the practice of going directly to key members of the General Assembly for funds, a tactic not unknown in other states but brought to a fine art in the south.

Under former Governor Riley, South Carolina dug into the issue of school reform as few other states have. As a result, during the 1984-88 period, higher education in the Palmetto State suffered a decline in percentage of state funds for higher education. However, in 1988 the state passed the "Cutting Edge" initiative, designed to support new research efforts, provide endowed professorships and increase the power of the Commission on Higher Education in the areas of academic policy and institutional budgetary approval. While institutions seemed pleased with the new package, it has been hard for some to give up the effective practice of going directly to their friends in the legislature for money and submit their requests to the Commission like everybody else.

The resignation of the president of the University of South Carolina in May 1990 (under questionable circumstances) did not help higher education during this crucial

time. At this writing no one can be sure what impact this event will have on the future of higher education, but the timing, right on the heels of the "Cutting Edge" initiative, could hardly be worse. At this time, two crucial tasks are the enhancement of relations between public and private institutions in the state, and the increase in enrollment of black students. Table 4 shows some of the higher education numbers.

This picture shows a state system which is diverse but not large enough to cover the range of educational needs in the state. When (not if) the second phase of the EIA is in place, an increasing pool of well-trained high school graduates will be seeking admission to South Carolina's institutions of higher education. The system will clearly need expansion in places and programs. There are enough untenured faculty positions to guarantee some flexibility in that department (see Table 5). A 21 percent minority enrollment would be high for many states, but with a 45 percent minority youth enrollment in the state, it is clearly not enough. Women faculty members are a little better represented in South Carolina than in the nation as a whole. (Another source suggests that the percentage of minority faculty is low, but comparisons are hard to develop well.)

There are a number of exciting things going on in the state. The largest conference focussing on the freshman year is held at the University of South Carolina at Columbia, so popular that it is also put on at sites around the nation. Of the 2,000 or so business schools in America, only seven have developed an internationally-oriented MBA program, requiring foreign language experience as well as some experience working in a foreign country. They are Penn., Duke, NYU, Michigan State, Georgetown, Virginia and the University of South Carolina. Programs like these two do help to put the state on the higher education map.

One hopes that legislators and governors in this state will see that their educational system is one whole unit, from pre-school to graduate school. (Texas seems to think that it can run a world-class flagship university and not worry about anything that feeds into it. Good luck to them.) The Education Improvement Act is great stuff. So is the "Cutting Edge" legislation. If the state's leadership can keep a picture of the whole educational system in their heads, it may be that education can fulfill its promise in South Carolina to enrich the lives of each and every citizen.

Table 4

NUMBER OF HIGHER EDUCATION INSTITUTIONS BY TYPE AND STUDENT ENROLLMENT, 1988

	<u>Number of Institutions</u>	<u>Student Enrollment</u>
<i>Public Four-Year Institutions</i>	12	74,799
<i>Public Two-Year Institutions</i>	21	38,553
<i>Private Four-Year Institutions</i>	20	22,381
<i>Private Two-Year Institutions</i>	11	5,108
<i>Total Institutions</i>	64	Total Enrollment 140,841
<i>Vocational Institutions</i>	66	
<i>Full-time Students (as a percent of all students)</i>	68.5%	
<i>Minority Students</i>	21.3%	

Source: The Chronicle of Higher Education, *Almanac*, September 6, 1989.

Table 5

HIGHER EDUCATION FACULTY, 1988

<i>Percent Women Faculty, Public Institutions</i>	31.9%
<i>Percent Women Faculty, Private Institutions</i>	33.6%
<i>Percent Tenured Faculty, Public Institutions</i>	58.0%
<i>Percent Tenured Faculty, Private Institutions</i>	55.7%

Source: The Chronicle of Higher Education, *Almanac*, September 6, 1989.

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SOUTH CAROLINA: SUMMARY AND RECOMMENDATIONS

"Halfway Home and a Long Way to Go" was business leader Bob Selman's apt description of South Carolina in 1990. He and his business colleagues were vital to the passage of the Education Improvement Act of 1984, and have stayed very much involved since then. The road the state has travelled since 1984 has been exceptional—teacher salaries have increased far more than the national average. Test scores are up. Administrators are better skilled. But so far, there is an irony in much of the improvement—for example, the state had the greatest *gain* in SAT scores from 1983–89 (up 48 points) but in 1990 the state's average SAT score of 838 was still the lowest of any of the 22 states using the SAT. In most economic measures, the state is clearly off the bottom—new jobs have been created at a rapid rate, per capita income has increased rapidly (even though the number of dollars is still low), and an estimated 96,000 people moved to South Carolina from 1980–1986, **mostly well-educated people with a variety of job skills.**

But underneath the improvements lie some of the most difficult demographic conditions to be found. If **THEY** don't change, the current progress will amount to little. The root problems are:

- **Very high poverty rates, especially among children and 40 percent of the state's citizens who live in rural areas.**
- **Large numbers of children born at risk of dying as infants, of being raised by a teenage mother or an unmarried mother and susceptible to drugs, crime and unemployment.**
- **A poorly educated adult population unable to be role models.**
- **A job structure with a large number of low-pay and low skill jobs.**

The stunning successes of the Education Improvement Act have not yet made much impact on these core problems. For that reason, "Target 2000" is not an option, it is a necessity. Special focus must be kept on the following goals:

1. **Major increases must be made in high school and college completion rates.** Over 80 percent of our (many) prisoners are high school dropouts. The illegal drug industry (for that is what it is) could not survive without a plentiful supply of high school dropouts, who are attracted to a "career" in drugs because they have no other choice. High school graduates get good jobs, stay out of jail, pay taxes, and raise successful children at a high rate of incidence. In addition, they don't kill themselves and others in traffic accidents and at home because they can **READ** the traffic signs on the road and the directions on the medicine bottles at home. In looking at our four root problems above, the best **SINGLE** answer is an increase in education, at all levels and for all ages. (About 200,000 adults in the state who are not high school graduates could pass a GED equivalency test, with enormous benefits to themselves and the state. And while businesses may be attracted to South Carolina by the low wage rates, they would be **MORE** attracted if a big increase in college graduates suggested a more sophisticated work force that would have to be paid well, increasing the state's ability to **CREATE** good new jobs.)
2. **The state's teachers cannot teach sick children. Health and education are natural partners in that if one succeeds, the other benefits. Housing, transportation, justice and social welfare are also part of the "team."** Dealing with our four root problems will require a coordinated approach of all social services at the local and state levels—after all, they all serve *the same clients!* In addition, the recent "Cutting Edge" initiatives for higher education should be seen as an opportunity, not a threat. If the legislature understands that education is a seamless web, pre-school to graduate school, and that failure anywhere in the web causes failures in other sectors, then **ALL** of education needs support just as local coalitions of education, health, social work and housing leaders can create local successes, as it is in individual communities that the rubber meets the road.
3. **During the next crucial decade in South Carolina, money and staff must be earmarked for those activities that will DIRECTLY improve high school and college graduation rates, especially for youth currently in poverty, regardless of race.** No one in South Carolina benefits from a young person's dropping out of high school, in fact, we can price the consequences—over \$20,000 a year for a prisoner, up to \$100,000 a year for a handicapped child whose handicap could have been prevented if the mother had taken a \$30 physical exam during the first trimester of pregnancy, and \$40,000 to get a child born to a crack-addicted mother ready for kindergarten. Prevention is cheap and effective, "cures" are expensive and ineffective, yet most of our money goes to prisons, unemployment benefits and clinics for teenage mothers. The best prevention program would be for communities in South Carolina to adopt the strategy now in use in Greeley, Colorado and Springfield, Missouri—to **ELIMINATE** school dropouts before the year 2000.